Energy Fuels Resources (USA) Inc.
225 Union Blvd. Suite 600
Lakewood, CO. US, 80228
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www.energyfuels.com

VIA EMAIL AND OVERNIGHT DELIVERY

December 17, 2013

Mr. Bryce Bird
Director, Utah Division of Air Quality
State of Utah Department of Environmental Quality
195 North 1950 West
Salt Lake City, UT 84116

Re: White Mesa Uranium Mill,
National Emissions Standards for Radon Emission from Operating Mill Tailings
Transmittal of November 2013 Monthly Radon Flux Monitoring Report for Cell 2

Dear Mr. Bird:

This letter transmits Energy Fuels Resources (USA) Inc.'s ("EFRI's") radon-222 flux monitoring report for November 2013 (the "Monthly Report") pursuant to 40 CFR 61.254(b), for Cell 2 at the White Mesa Uranium Mill (the "Mill"). Cell 2, which was constructed and placed into operation prior to December 15, 1989 is subject to the requirements in 40 CFR 61.252(a). As discussed in our 2012 Annual Radon Flux Monitoring Report submitted March 29, 2013, Cell 2 was not in compliance with the emissions limits in 40 CFR 61.252(a) of 20 pCi/(m^2 -sec) for the calendar year 2012. This Monthly Report is submitted pursuant to 40 CFR 261(b) which requires monthly reporting of monitoring data collected beginning the month immediately following the submittal of the annual report for the year in non-compliance.

Included with the Monthly Report is a Radon Flux Measurement Program Report, dated November 2013, prepared by Tellco Environmental (the "Tellco November 2013 Monthly Report"). The Tellco November 2013 Monthly Report indicates that for the month of November 2013, the average radon flux from Cell 2 of 19.5 pCi/(m^2 -sec), complied with the standard in 40 CFR 61.252(a).

If you have any questions, please feel free to contact me at (303) 389-4132.

Yours very truly,

Jo Ann Tischler

Energy Fuels Resources (USA) Inc.
Jo Ann Tischler
Manager, Compliance and Licensing

cc: David C. Frydenlund
Phil Goble, Utah DRC
Dan Hillsten
Rusty Lundberg, Utah DRC
Jay Morris, Utah DAQ
Harold R. Roberts
David E. Turk
Kathy Weinel
Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, U. S. Environmental Protection Agency

Attachments

ENERGY FUELS RESOURCES (USA) INC.
40 CODE OF FEDERAL REGULATIONS 61 SUBPART W

WHITE MESA MILL
SAN JUAN COUNTY, UTAH

TAILINGS CELL 2 MONTHLY COMPLIANCE REPORT FOR NOVEMBER 2013

Submitted December 17, 2013

by

Energy Fuels Resources (USA) Inc.
225 Union Blvd. Suite 600
Lakewood, Colorado 80228
(303) 974-2140

1) Name and Location of the Facility

Energy Fuels Resources (USA) Inc. ("EFRI") operates the White Mesa Mill (the "Mill"), located in central San Juan County, Utah, approximately 6 miles (9.5 km) south of the city of Blanding. The Mill can be reached by private road, approximately 0.5 miles west of Utah State Highway 191. Within San Juan County, the Mill is located on fee land and mill site claims, covering approximately 5,415 acres, encompassing all or part of Sections 21, 22, 27, 28, 29, 32, and 33 of T37S, R22E, and Sections 4, 5, 6, 8, 9, and 16 of T38S, R22E, Salt Lake Base and Meridian.

All operations authorized by the Mill's State of Utah Radioactive Materials License are conducted within the confines of the existing site boundary. The milling facility currently occupies approximately 50 acres and the tailings disposal cells encompass another 275 acres.

2) Monthly Report

This Report is the monthly report for the Mill's Cell 2 for November 2013, required under 40 Code of Federal Regulations (CFR) 61.254(b).

A summary of the events that gave rise to the requirement to file this monthly report under 40 CFR 61.254(b) is set out in Section 4 of this Report. A summary of the radon emissions from Cell 2 measured in November 2013 is set out in Section 5 of this Report.

The monthly monitoring data for November 2013 required under 40 CFR 61.254(b) is provided in Attachment 1 to this Report, which contains the Radon Flux Measurement Program Report, dated November 2013, prepared by Tellco Environmental (the "Tellco November 2013 Monthly Report"). The results are summarized in Section 5 of this Report.

3) Name of the Person Responsible for Operation and Preparer of Report

Energy Fuels Resources (USA) Inc.
225 Union Boulevard, Suite 600
Lakewood, Colorado 80228
303.628.7798 (phone)
303.389.4125 (fax)

EFRI is the operator of the Mill and its tailings impoundments (Cells 2, 3, and 4A) and evaporation impoundments (Cells 1 and 4B). The Mill is an operating conventional uranium mill, processing both conventional ores and alternate feed materials. The "method of operations" at the Mill is phased disposal of tailings. Compliance with the NESHAP standards at 40 CFR 61.252(a) is determined annually for existing impoundments (i.e., Cells 2 and 3). The annual radon emissions for existing impoundments are measured using Large Area Activated Charcoal Canisters in conformance with 40 CFR, Part 61, Appendix B, Method 115, Restrictions to Radon Flux Measurements, (Environmental Protection Agency ["EPA"], 2008). These canisters are passive gas adsorption sampling devices used to determine the flux rate of Radon-222 gas from the surface of the tailings material. For impoundments licensed for use after December 15, 1989 (i.e., Cell 4A, and 4B), EFRI employs the work practice standard listed at 40 CFR 61.252(b)(1) in that all tailings impoundments constructed or licensed after that date are lined, are no more than 40 acres in area, and no more than two impoundments are operated for tailings disposal at any one time.

EFRI is submitting this monthly compliance report in conformance with the standards in 40 CFR 61.254(b).

4) Background Information -- Summary of 2012 Annual Report

Facility History

Cells 2 and 3, which have surface areas of 270,624 m^2 (approximately 66 acres) and 288,858 m^2 (approximately 71 acres), respectively, were constructed prior to December 15, 1989 and are considered "existing impoundments" as defined in 40 CFR 61.251. Radon flux from Cells 2 and 3 is monitored annually, as discussed below.

Cells 4A and 4B were constructed after December 15, 1989, and are subject to the work practice standards in 40 CFR 61.252(b)(1), which require that the maximum surface area of each cell not exceed 40 acres. For this reason, Cells 4A and 4B are not required to undergo annual radon flux monitoring.

Cell 3, which is nearly filled, and Cell 4A, receive the Mill's tailings sands. Cells 1 and 4B, receive solutions only, and are in operation as evaporative ponds. Cell 2 is filled with tailings, is covered with an interim soil cover, and is no longer in operation.

Dewatering of Cell 2

The Utah Division of Water Quality issued Groundwater Discharge Permit ("GWDP') UGW-370004 in 2005. Under Part I.D.3 of the current GWDP, EFRI has been required to accelerate dewatering of the solutions in the Cell 2 slimes drain. Dewatering of Cell 2 began in 2008. In mid-2011, changes were made in the pumping procedures for slimes drain dewatering of Cell 2 that resulted in an acceleration of dewatering since that time. As discussed in more detail below, studies performed by EFRI indicate that the increase in radon flux from Cell 2 has likely been caused by these dewatering activities. No other changes appear to have occurred in condition, use, or monitoring of Cell 2 that could have resulted in an increase in radon flux from the cell.

The average water level in the Cell 2 slimes drain standpipe for each of the years 2008 through 2012 indicate that water levels in Cell 2 have decreased approximately 3.25 feet (5600.56 to 5597.31 fmsl) since 2008. Of this decrease in water level, approximately 1 foot occurred between 2010 and 2011, reflecting the improved dewatering that commenced part way through 2011, and approximately 2 feet between 2011 and 2012, reflecting improved dewatering for all of 2012.

Radon Flux Monitoring of Cell 2

Tellco performed the 2012 radon flux sampling during the second quarter of 2012 in the month of June. On June 25, 2012, Tellco advised EFRI that the average radon flux for Cell 2 from samples taken in June 2012 was 23.1 pCi/(m^2-sec) (referred to in the Tellco report as pCi/m^2-s), which exceeded the Subpart W requirement. The result of the 2012 radon-222 flux monitoring for Cell 3 was 18 pCi/(m^2-sec). Cell 3, therefore, was in compliance with this standard for 2012.

40 CFR 61.253 provides that:

> "When measurements are to be made over a one year period, EPA shall be provided with a schedule of the measurement frequency to be used. The schedule may be submitted to EPA prior to or after the first measurement period."

EFRI advised the Utah Division of Air Quality ("DAQ"), by notices submitted on August 3 and September 14, 2012, that EFRI planned to collect additional samples from Cell 2 in the third and fourth quarters of 2012. These samples were collected on September 9, October 21, and November 21, 2012, respectively. As the June 2012 monitoring for Cell 3 indicated that it was in compliance with the standard, further monitoring of Cell 3 was not performed.

The result of the 2012 radon-222 flux monitoring for Cell 2 was 25.9 pCi/(m^2 -sec) (averaged over four monitoring events). The measured radon flux from Cell 2 in 2012 therefore exceeded the standard in 40 CFR 61.252(a) of 20 pCi/(m^2 -sec).

The Cell 2 and Cell 3 radon flux results were reported in EFRI's 2012 Annual Radon Flux Monitoring Report (the "2012 Annual Report").

The provisions of 40 CFR 61.254(b) requires that:

> "If the facility is not in compliance with the emission limits of paragraph 61.252 in the calendar year covered by the report, then the facility must commence reporting to the Administrator on a monthly basis the information listed in paragraph (a) of this section, for the preceding month. These reports will start the month immediately following the submittal of the annual report for the year in non-compliance and will be due 30 days following the end of each month."

This Report is the required monthly report for November 2013 for Cell 2. Monthly monitoring will continue until US EPA or DAQ determines that it is no longer required.

Evaluation of Potential Factors Affecting Radon Flux

In an attempt to identify the cause of the increase in radon flux at Cell 2, EFRI conducted a number of evaluations including:

- Excavation of a series of 10 test pits in the Cell 2 sands to collect additional information needed to ascertain factors affecting radon flow path and flux,
- Evaluation of radon trends relative to slimes drain dewatering,
- Development of correlation factors relating dewatering rates to radon flux, and
- Estimation of the thickness of temporary cover that would be required to achieve compliance with the radon flux standard of 20 pCi/(m^2 -sec), during the dewatering process.

These studies and results are discussed in detail in EFRI's 2012 Annual Radon Flux Report and summarized in the remainder of this section.

Slimes drain dewatering data indicate that a lowering of the water level in Cell 2 has resulted in an increase in the average radon flux, and that an increase in water level has resulted in a decrease in the average radon flux. Changes in radon flux have consistently been inversely proportional to changes in water levels in Cell 2 since 2008. For the last three years the change in radon flux has been between 3 and 5 pCi/(m^2-sec) per each foot of change in water level. It is also noteworthy that the significant increases in radon flux from Cell 2 which occurred between 2010 and 2011 and between 2011 and 2012 coincided with the periods of improved (accelerated) dewatering of Cell 2.

EFRI has evaluated these results and has concluded that the increase in radon-222 flux from Cell 2 that has resulted in the exceedance of the 20 pCi/(m^2 -sec) standard in 40 CFR 61.252 (a) in 2012 is most likely the unavoidable result of Cell 2 dewatering activities mandated by the Mill's State of Utah GWDP. This is due to the fact that saturated tailings sands attenuate radon flux more than dry tailings sands, and the thickness of saturated tailings sands decrease as dewatering progresses. There appear to have been no other changes in conditions at Cell 2 that could have caused this increase in radon flux from Cell 2. These conclusions are supported by evaluations performed by SENES Consultants Limited ("SENES"), who were retained by EFRI to assess the potential effects of dewatering on the radon flux from Cell 2 and to provide calculations of the thickness of temporary cover required to achieve the radon flux standard during the dewatering process.

SENES' evaluations were presented in a report provided as an attachment to EFRI's 2012 Annual Report. SENES estimated a theoretical radon flux from the covered tailings at Cell 2 for various depths (thicknesses) of dry tailings, and predicted future increases in radon flux as a function of decreases in water levels.

In order to explore potential interim actions that could be taken to maintain radon flux within the 20 pCi/(m^2-sec) standard, the SENES study also evaluated the extent to which radon emanations from the cell can be reduced by increasing the thickness of the current interim cover on Cell 2.

5) November 2013 Results

Detailed results for November 2013 for Cell 2 are contained in the Tellco November 2013 Monthly Report. As described in the Tellco November 2013 Monthly Report, monitoring was performed consistent with 40 CFR 61 Subpart W Appendix B, Method 115 radon emissions reporting requirements. The radon monitoring consisted of 100 separate monitoring points at which individual radon flux measurements have been made by collection on carbon canisters. The individual radon flux measurements were averaged to determine compliance with 40 CFR Part 61.252.

The average radon flux for Cell 2 in November 2013 was reported by Tellco to be 19.5 pCi/(m^2 -sec). This radon flux value complies the 20 pCi/(m^2 -sec) standard in 40 CFR 61.252.

6) Other Information

Status of Proposed Updated Final Cover Design

As part of developing the Mill's final reclamation plan required to achieve the radon flux standard of 20 pCi/(m^2-sec), a final engineered cover design was submitted by TITAN Environmental in 1996 and approved by the US Nuclear Regulatory Commission ("NRC"). An updated final cover design for the Mill's tailings system, submitted in November 2011, is under review by the Utah Division of Radiation Control ("DRC"), and is not currently approved. DRC provided a second round of interrogatories on the proposed cover design and associated Infiltration and Contaminant Transport Model ("ICTM") in February 2013, for which EFRI and its consultant, MWH Inc. are preparing responses.

7) Additional Information Required for Monthly Reports

a) <u>Controls or Other Changes in Operation of the Facility</u>

40 CFR 61.254(b)(1) requires that in addition to all the information required for an Annual Report under 40 CFR 61.254(b), monthly reports shall also include a description of all controls or other changes in operation of the facility that will be or are being installed to bring the facility into compliance.

Based on the evaluations described in Section 4, above, and as discussed during EFRI's March 27, 2013 meeting with DAQ and DRC staff, in addition to the monthly monitoring reported in this Monthly Report, EFRI has performed the following steps to ensure that radon emissions from Cell 2 are kept as low as reasonably achievable and to bring the facility into compliance with the applicable standard:

Construction and Monitoring of Interim Cover Test Area, and Application of Additional Random Fill

i. EFRI constructed 12 test areas on Cell 2 to assess the effect of the addition of one foot of additional soil cover. EFR applied one foot of random fill moistened and compacted by a dozer to 12 circular test areas of approximately 100 to 120 feet in diameter. The total tested area is larger than the single 100 foot by 100 foot area proposed in previous Cell 2 monthly radon flux monitoring reports. Installation of 12 test areas containing the additional 1 foot of compacted soil was completed by August 2, 2013. Wetting and re-compaction of all 12 areas was completed prior to the start of the September 21, 2013 monthly flux monitoring event.

ii. The radon flux has been monitored monthly at 100 locations on Cell 2, including the 12 test areas, since April 2013.

iii. The effectiveness of the additional compacted cover at the 12 test areas will be evaluated over the next several months. If the desired reduction (to within compliance levels) is achieved on the test areas, EFRI will apply additional random fill at 90% compaction, to the remainder of Cell 2, on or before July 1, 2014.

Based on discussions with DRC, EFRI will proceed with the application of cover and will provide a letter to DRC with information demonstrating that the application of soil cover is consistent with the design and QC requirements of the proposed Reclamation Plan, currently under revision, on the understanding that the application of cover will be credited toward the final cover design.

Interim Corrective Action

EFRI has taken the following additional steps to provide interim mitigation of radon flux from Cell 2. EFRI has identified the areas of elevated radon flux associated with known sources of radiological contamination at or near the surface of the cell cover. Specifically:

- Windblown tailings from Cell 3 which have been deposited on Cell 2 have been removed and re-buried in Cell 3. A berm approximately five feet high, extending the length of the Cell 3 beach has been constructed at the edge of Cell 2, to prevent further carryover of sands from Cell 3 onto the Cell 2 cover.
- Any contaminated material near the surface has been reburied.
- Additional cover material has been added to each of 12 identified areas of elevated flux as described under the section entitled "Interim Cover Test Area", above.
- Monthly radon flux monitoring to assess the effectiveness of the above actions is ongoing.

b) Facility's Performance Under Terms of Judicial or Administrative Enforcement Decree

The Mill is not under a judicial or administrative enforcement decree.

8) Certification

I Certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment. See 18, U.S.C. 1001.

Signed: ______________________ Date: December 17, 2013

David C. Frydenlund

Senior Vice President, General Counsel and Corporate Secretary

ATTACHMENT 1

National Emissions Standards for Hazardous Air Pollutants

2013 Radon Flux Measurement Program

November 2013 Sampling Results

National Emission Standards for Hazardous Air Pollutants
2013 Radon Flux Measurement Program

White Mesa Mill
6425 South Highway 191
Blanding, Utah 84511

November 2013 Sampling Results
Cell 2

Prepared for: Energy Fuels Resources (USA) Inc.
6425 S. Highway 191
P.O. Box 809
Blanding, Utah 84511

Prepared by: Tellco Environmental
P.O. Box 3987
Grand Junction, Colorado 81502

TABLE OF CONTENTS

1. INTRODUCTION

During November 04-05, 2013 Tellco Environmental, LLC (Tellco) of Grand Junction, Colorado, provided support to Energy Fuels Resources (USA) Inc. (Energy Fuels) to conduct radon flux measurements regarding the required National Emission Standards for Hazardous Air Pollutants (NESHAPs) Radon Flux Measurements. These measurements are required of Energy Fuels to show compliance with Federal Regulations (further discussed in Section 3 below). The standard is not an average per facility, but is an average per radon source. The standard allows mill owners or operators the option of either making a single set of measurements or making measurements over a one year period (e.g., weekly, monthly, or quarterly intervals).

Prior to 2012, Energy Fuels had opted to make a single set of measurements to represent the radon flux each year; however, as the radon flux levels in Cell 2 began exceeding the regulatory standard of 20 picoCuries per square meter per second (pCi/m^2-s) in 2012, Energy Fuels decided to make the radon flux measurements on a more frequent basis. Energy Fuels is presently on a monthly radon flux sampling plan for Cell 2. This report presents the radon flux measurements results for Cell 2 for November 2013; the results of each monthly sampling event are presented in separate reports.

During June and July 2013, Energy Fuels placed additional cover materials at selected sample locations of Cell 2 in an attempt to reduce the radon flux levels. The additional material was approximately 18-24 inches thick and approximately 100 feet in diameter, centered around selected sample location points where previous sampling had identified radon flux greater than 40 pCi/m^2-s.

Tellco was contracted to provide radon canisters, equipment, and canister-placement personnel as well as lab analysis of samples. Energy Fuels personnel provided support for loading and unloading charcoal from the canisters. This report details the procedures employed by Energy Fuels and Tellco to obtain the results presented in Section 9.0 of this report.

2. SITE DESCRIPTION

The White Mesa Mill facility is located in San Juan County in southeastern Utah, six miles south of Blanding, Utah. The mill began operations in 1980 for the purpose of extracting uranium and vanadium from feed stocks. Processing effluents from the operation are deposited in four lined cells, which vary in depth. Cell 1, Cell 4A, and Cell 4B did not require radon flux sampling, as explained in Section 3 below. Cell 3 sampling results are presented in separate reports.

Cell 2, which has a total area of approximately 270,624 square meters (m^2), has been filled and covered with interim cover. The Cell 2 cover region is the same size in 2013 as it was in 2012. This cell is comprised of one region, a soil cover of varying thickness, which requires NESHAPs radon flux monitoring. There were no exposed tailings within Cell 2 at during the November 2013 sampling.

Cell 3, which has a total area of approximately 288,858 m^2, is nearly filled with tailings sand and is undergoing pre-closure activities. This cell is comprised of two source regions that require NESHAPs radon monitoring: a soil cover region of varying thickness and an exposed tailings "beaches" region.

The remaining area is covered by standing liquid in lower elevation areas. The sizes of the regions vary due to the continuing advancement of interim cover materials and varying water levels.

3. REGULATORY REQUIREMENTS FOR THE SITE

Radon emissions from the uranium mill tailings at this site are regulated by the State of Utah's Division of Radiation Control and administered by the Utah Division of Air Quality under generally applicable standards set by the Environmental Protection Agency (EPA) for Operating Mills. Applicable regulations are specified in 40 CFR Part 61, Subpart W, National Emission Standards for Radon Emissions from Operating Mill Tailings, with technical procedures in Appendix B. At present, there are no Subpart T uranium mill tailings at this site. These regulations are a subset of the NESHAPs. According to subsection 61.252 Standard, (a) radon-222 emissions to ambient air from an existing uranium mill tailings pile shall not exceed an average of 20 pCi/m^2-s for each pile or region. Subsection 61.253, Determining Compliance, states that: "Compliance with the emission standard in this subpart shall be determined annually through the use of Method 115 of Appendix B." Cell 1 is completely covered with standing liquid and therefore no radon flux measurements are required on Cell 1. The repaired Cell 4A, and newly constructed Cell 4B, were both constructed after December 15, 1989 and each was constructed with less than 40 acres surface area. Cell 4A and 4B comply with the requirements of 40 CFR 61.252(b), therefore no radon flux measurements are required on either Cell 4A or 4B.

4. SAMPLING METHODOLOGY

Radon emissions were measured using Large Area Activated Charcoal Canisters (canisters) in conformance with 40 CFR, Part 61, Appendix B, Method 115, Restrictions to Radon Flux Measurements, (EPA, 2012). These are passive gas adsorption sampling devices used to determine the flux rate of radon-222 gas from a surface. The canisters were constructed using a 10-inch diameter PVC end cap containing a bed of 180 grams of activated, granular charcoal. The prepared charcoal was placed in the canisters on a support grid on top of a ½ inch thick layer of foam and secured with a retaining ring under 1½ inches of foam (see Figure 1, page 10).

One hundred sampling locations were distributed throughout Cell 2 (consisting of one region) as depicted on the Sample Locations Map (see Figure 2, Appendix D). Each charged canister was placed directly onto the surface (open face down) and exposed to the surface for 24 hours. Radon gas adsorbed onto the charcoal and the subsequent radioactive decay of the entrained radon resulted in radioactive lead-214 and bismuth-214. These radon progeny isotopes emit characteristic gamma photons that can be detected through gamma spectroscopy. The original total activity of the adsorbed radon was calculated from these gamma ray measurements using calibration factors derived from cross-calibration of standard sources containing known total activities of radium-226 with geometry identical to the counted samples and from the principles of radioactive decay.

After approximately 24 hours, the exposed charcoal was transferred to a sealed plastic sample container (to prevent radon loss and/or further exposure during transport), identified and labeled, and transported to the Tellco laboratory in Grand Junction, Colorado for analysis. Upon completion of on-site activities, the field equipment was alpha and beta-gamma scanned for possible contamination resulting from fieldwork activities. All field equipment was surveyed by Energy Fuels Radiation Safety personnel and released for unrestricted use. Tellco personnel maintained custody of the samples from collection through analysis.

5. FIELD OPERATIONS

5.1 Equipment Preparation

All charcoal was dried at 110°C before use in the field. Unused charcoal and recycled charcoal were treated the same. 180-gram aliquots of dried charcoal were weighed and placed in sample containers.

Proper balance operation was verified daily by checking a standard weight. The balance readout agreed with the known standard weight to within ± 0.1 percent.

After acceptable balance check, empty containers were individually placed on the balance and the scale was re-zeroed with the container on the balance. Unexposed and dried charcoal was carefully added to the container until the readout registered 180 grams. The lid was immediately placed on the container and sealed with plastic tape. The balance was checked for readout drift between readings.

Sealed containers with unexposed charcoal were placed individually in the shielded counting well, with the bottom of the container centered over the detector, and the background count rate was documented. Three five-minute background counts were conducted on ten percent of the containers, selected at random to represent the "batch". If the background counts were too high to achieve an acceptable lower limit of detection (LLD), the entire charcoal batch was labeled non-conforming and recycled through the heating/drying process.

5.2 Sample Locations, Identification, and Placement

On November 04, 2013 100 sampling locations were spread out throughout the Cell 2 covered region. The same sampling locations that were established for the previous sampling of Cell 2 were used for this November 2013 sampling, although the actual sample identification numbers (IDs) are different. An individual ID was assigned to each sample point, using a sequential alphanumeric system indicating the charcoal batch and physical location within the region (e.g., P01…P100). This ID was written on an adhesive label and affixed to the top of the canister. The sample ID, date, and time of placement were recorded on the radon flux measurements data sheets for the set of one hundred measurements.

Prior to placing a canister at each sample location, the retaining ring, screen, and foam pad of each canister were removed to expose the charcoal support grid. A pre-measured charcoal charge was selected from a batch, opened and distributed evenly across the support grid. The canister was then reassembled and placed face down on the surface at each sampling location. Care was exercised not to push the device into the soil surface. The canister rim was "sealed" to the surface using a berm of local borrow material. Sample ID "P94" was offset approximately 20 feet west because of standing water at the actual location marker due to previous rainstorms.

Five canisters (blanks) were similarly processed and the canisters were kept inside an airtight plastic bag during the 24-hour testing period.

5.3 Sample Retrieval

On November 05, 2013 at the end of the 24-hour testing period, all canisters were retrieved, disassembled and each charcoal sample was individually poured through a funnel into a container.

Identification numbers were transferred to the appropriate container, which was sealed and placed in a box for transport. Retrieval date and time were recorded on the same data sheets as the sample placement information. The blank samples were similarly processed.

All 100 charcoal samples from Cell 2 covered region were successfully containerized during the unloading process.

Tellco personnel maintained custody of the samples from collection through lab analysis.

5.4 Environmental Conditions

A rain gauge and thermometer were placed within Cell 2 to monitor rainfall and air temperatures during sampling in order to ensure compliance with the regulatory measurement criteria.

In accordance with 40 CFR, Part 61, Appendix B, Method 115:

- Measurements were not initiated within 24 hours of rainfall.
- There was no rainfall after the placement of the canisters.
- The criteria regarding minimum ambient air temperature and frozen ground do not apply when performing sampling on a monthly basis; however, the minimum air temperature during the sampling period was 32 degrees F, and the ground was not frozen.

6. SAMPLE ANALYSIS

6.1 Apparatus

Apparatus used for the analysis:

- Single- or multi-channel pulse height analysis system, Ludlum Model 2200 with a Teledyne 3" x 3" sodium iodide, thallium-activated (NaI(Tl)) detector.
- Lead shielded counting well approximately 40 cm deep with 5-cm thick lead walls and a 7-cm thick base and 5 cm thick top.
- National Institute of Standards and Technology (NIST) traceable aqueous solution radium-226 absorbed onto 180 grams of activated charcoal.
- Ohaus Model C501 balance with 0.1-gram sensitivity.

6.2 Sample Inspection and Documentation

Once in the laboratory, the integrity of each charcoal container was verified by visual inspection of the plastic container. Laboratory personnel checked for damaged or unsealed containers and verified that the data sheet was complete.

All of the 100 sample containers and 5 blank containers received and inspected at the Tellco analytical laboratory were verified as valid and no damaged or unsealed containers were observed.

6.3 Background and Sample Counting

The gamma ray counting system was checked daily, including background and radium-226 source measurements prior to and after each counting session. Based on calibration statistics, using two sources with known radium-226 content, background and source control limits were established for each Ludlum/Teledyne counting system with shielded well (see Appendix A).

Gamma ray counting of exposed charcoal samples included the following steps:

- The length of count time was determined by the activity of the sample being analyzed, according to a data quality objective of a minimum of 1,000 accrued counts for any given sample.
- The sample container was centered on the NaI detector and the shielded well door was closed.
- The sample was counted over a determined count length and then the mid-sample count time, date, and gross counts were documented on the radon flux measurements data sheet and used in the calculations.
- The above steps were repeated for each exposed charcoal sample.
- Approximately 10 percent of the containers counted were selected for recounting. These containers were recounted on the next day following the original count.

7. QUALITY CONTROL (QC) AND DATA VALIDATION

Charcoal flux measurement QC samples included the following intra-laboratory analytical frequency objectives:

- Blanks, 5 percent, and
- Recounts, 10 percent

All sample data were subjected to validation protocols that included assessments of sensitivity, precision, accuracy, and completeness. All method-required data quality objectives (EPA, 2012) were attained.

7.1 Sensitivity

A total of five blanks were analyzed by measuring the radon progeny activity in samples subjected to all aspects of the measurement process, excepting exposure to the source region. These blank sample measurements comprised approximately 5 percent of the field measurements. Analysis of the five blank samples measured radon flux rates ranging from approximately 0.00 to 0.01 pCi/m^2-s. The lower limit of detection (LLD) was approximately 0.03 pCi/m^2-s.

7.2 Precision

Ten recount measurements, distributed throughout the sample set, were performed by replicating analyses of individual field samples (see Appendix B). These recount measurements comprised approximately 10 percent of the total number of samples analyzed. The precision of all recount measurements, expressed as relative percent difference (RPD), ranged from less than 0.1 percent to 7.4 percent with an overall average precision of approximately 2.3 percent RPD.

7.3 Accuracy

Accuracy of field measurements was assessed daily by counting two laboratory control samples with known Ra-226 content. Accuracy of these lab control sample measurements, expressed as percent bias, ranged from approximately -1.7 percent to +0.8 percent. The arithmetic average bias of the lab control sample measurements was approximately -0.6 percent (see Appendix A).

7.4 Completeness

All 100 of the samples from the Cell 2 cover region were verified, representing 100 percent completeness for the November 2013 radon flux sampling.

8. CALCULATIONS

Radon flux rates were calculated for charcoal collection samples using calibration factors derived from cross-calibration to sources with known total activity with identical geometry as the charcoal containers. A yield efficiency factor was used to calculate the total activity of the sample charcoal containers. Individual field sample result values presented were not reduced by the results of the field blank analyses.

In practice, radon flux rates were calculated by a database computer program. The algorithms utilized by the data base program were as follows:

Equation 8.1:

$$\text{pCi Rn-222/m}^2\text{sec} = \frac{N}{[Ts*A*b*0.5^{(d/91.75)}]}$$

where: N = net sample count rate, cpm under 220-662 keV peak
Ts = sample duration, seconds
b = instrument calibration factor, cpm per pCi; values used:
0.1699, for M-01/D-21 and
0.1702, for M-02/D-20
d = decay time, elapsed hours between sample mid-time and count mid-time
A = area of the canister, m^2

Equation 8.2:

$$\text{Error},2\sigma = 2 \times \frac{\sqrt{\frac{\text{Gross Sample, cpm}}{\text{Sample Count, t, min}} + \frac{\text{Background Sample, cpm}}{\text{Background Count, t, min}}}}{\text{Net, cpm}} \times \text{Sample Concentration}$$

Equation 8.3:

$$LLD = \frac{2.71 + (4.65)(S_b)}{[Ts*A*b*0.5^{(d/91.75)}]}$$

where: 2.71 = constant
4.65 = confidence interval factor
S_b = standard deviation of the background count rate
Ts = sample duration, seconds
b = instrument calibration factor, cpm per pCi; values used:
0.1699, for M-01/D-21 and
0.1702, for M-02/D-20
d = decay time, elapsed hours between sample mid-time and count mid-time
A = area of the canister, m^2

9. RESULTS

9.1 Mean Radon Flux

Referencing 40 CFR, Part 61, Subpart W, Appendix B, Method 115 - Monitoring for Radon-222 Emissions, Subsection 2.1.7 - Calculations, "the mean radon flux for each region of the pile and for the total pile shall be calculated and reported as follows:

(a) The individual radon flux calculations shall be made as provided in Appendix A EPA 86(1). The mean radon flux for each region of the pile shall be calculated by summing all individual flux measurements for the region and dividing by the total number of flux measurements for the region.

(b) The mean radon flux for the total uranium mill tailings pile shall be calculated as follows:

$$J_s = \frac{J_1A_1 + \ldots J_2A_2 \,[+]\, \ldots J_iA_i}{A_t}$$

Where: J_s = Mean flux for the total pile (pCi/m^2-s)
J_i = Mean flux measured in region i (pCi/m^2-s)
A_i = Area of region i (m^2)
A_t = Total area of the pile (m^2)"

40 CFR 61, Subpart W, Appendix B, Method 115, Subsection 2.1.8, Reporting states "The results of individual flux measurements, the approximate locations on the pile, and the mean radon flux for each region and the mean radon flux for the total stack [pile] shall be included in the emission test report. Any condition or unusual event that occurred during the measurements that could significantly affect the results should be reported."

9.2 Site Results

Site Specific Sample Results (reference Appendix C)

(a) The mean radon flux for the Cell 2 region at the site is as follows:

Cell 2 - Cover Region = 19.5 pCi/m^2-s (based on 270,624 m^2 area)

Note: Reference Appendix C of this report for the entire summary of individual measurement results.

(b) Using the data presented above, the calculated mean radon flux for Cell 2 is as follows:

Cell 2 = 19.5 pCi/m^2-s

$$\frac{(19.5)(270{,}624)}{270{,}624} = 19.5$$

As shown above, the arithmetic mean radon flux of the November 2013 samples for Cell 2 at Energy Fuels White Mesa milling facility is below the NRC and EPA standard of 20 pCi/m^2-s.

For the past several years, the site has been experiencing drought conditions, which were especially severe during 2012 and the first half of 2013. The result of this dry weather is likely a lowering of the moisture levels in the buried tailings and cover materials, leading to increased radon flux rates at the site. There were a few intense storms in September 2013, which produced very heavy rain downpours and flash flooding at Cell 2, with water running off or standing on the surface cover material. There were still some areas with standing water on the surface during the November 2013 sampling. The November 2013 sampling results for Cell 2 are approximately the same as the October 2013 average of 19.0 pCi/m^2-s.

Appendix C presents the summary of individual measurement results, including blank sample analysis.

Sample locations are depicted on Figure 2, which is included in Appendix D. The map was produced by Tellco.

References

U. S. Environmental Protection Agency, *Radon Flux Measurements on Gardinier and Royster Phosphogypsum Piles Near Tampa and Mulberry, Florida*, EPA 520/5-85-029, NTIS #PB86-161874, January 1986.

U. S. Environmental Protection Agency, *Title 40, Code of Federal Regulations*, July 2012.

U. S. Nuclear Regulatory Commission, *Radiological Effluent and Environmental Monitoring at Uranium Mills*, Regulatory Guide 4.14, April 1980.

U. S. Nuclear Regulatory Commission, *Title 10, Code of Federal Regulations*, Part 40, Appendix A, January 2013.

Figure 1

Large Area Activated Charcoal Canisters Diagram

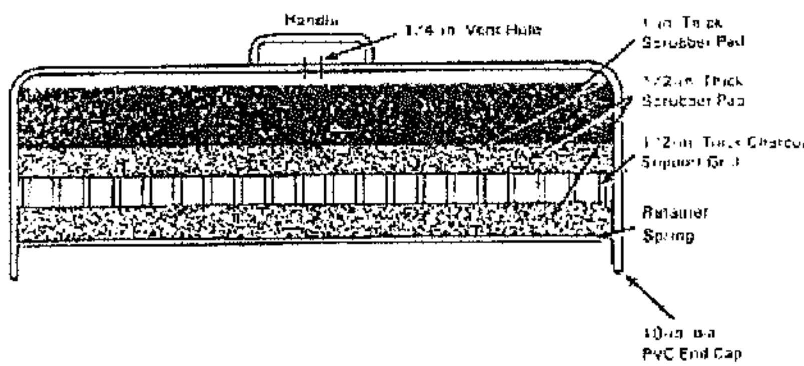


FIGURE 1 Large-Area Radon Collector

Appendix A

Charcoal Canister Analyses Support Documents

ACCURACY APPRAISAL TABLE
NOVEMBER 2013 SAMPLING

ENERGY FUELS RESOURCES
WHITE MESA MILL, BLANDING, UTAH
2013 NESHAPs RADON FLUX MEASUREMENTS
CELL 2
SAMPLING DATES: 11/04/13-11/05/13

SYSTEM I.D.	DATE	Bkg Counts (1 min. each) #1	#2	#3	Source Counts (1 min. each) #1	#2	#3	AVG NET cpm	YIELD cpm/pCi	FOUND pCi	SOURCE ID	KNOWN pCi	% BIAS
M-01/D-21	11/6/2013	123	130	124	10065	10309	10234	10077	0.1699	59311	GS-04	59300	0.0%
M-01/D-21	11/6/2013	141	120	133	10185	10245	10146	10061	0.1699	59215	GS-04	59300	-0.1%
M-01/D-21	11/7/2013	123	146	128	9993	10196	10111	9968	0.1699	58668	GS-04	59300	-1.1%
M-01/D-21	11/7/2013	116	135	127	10302	10292	10038	10085	0.1699	59356	GS-04	59300	0.1%
M-01/D-21	11/6/2013	123	130	124	10103	10306	10392	10141	0.1699	59690	GS-05	59300	0.7%
M-01/D-21	11/6/2013	141	120	133	10150	10187	10197	10047	0.1699	59133	GS-05	59300	-0.3%
M-01/D-21	11/7/2013	123	146	128	10267	10161	10095	10042	0.1699	59105	GS-05	59300	-0.3%
M-01/D-21	11/7/2013	116	135	127	10308	10186	10360	10159	0.1699	59792	GS-05	59300	0.8%
M-02/D-20	11/6/2013	137	112	136	10076	10123	9998	9937	0.1702	58386	GS-04	59300	-1.5%
M-02/D-20	11/6/2013	132	143	115	9987	10325	10175	10032	0.1702	58944	GS-04	59300	-0.6%
M-02/D-20	11/7/2013	139	127	126	10168	10218	9995	9996	0.1702	58733	GS-04	59300	-1.0%
M-02/D-20	11/7/2013	111	121	126	10004	10344	10050	10013	0.1702	58833	GS-04	59300	-0.8%
M-02/D-20	11/6/2013	137	112	136	10096	9993	10135	9946	0.1702	58439	GS-05	59300	-1.5%
M-02/D-20	11/6/2013	132	143	115	10064	10061	10025	9920	0.1702	58284	GS-05	59300	-1.7%
M-02/D-20	11/7/2013	139	127	126	10008	10106	10208	9977	0.1702	58617	GS-05	59300	-1.2%
M-02/D-20	11/7/2013	111	121	126	10192	10182	10124	10047	0.1702	59029	GS-05	59300	-0.5%
AVERAGE PERCENT BIAS FOR ALL ANALYTICAL SESSIONS:													-0.6%

CHARCOAL CANISTER ANALYSIS SYSTEM

SITE LOCATION: White Mesa Mill, Blanding, UT

CLIENT: Energy Fuels Resources (USA)

Calibration Check Log

System ID: M-02/D-20 Calibration Date: 6/14/13 Due Date: 6/14/14

Scaler S/N: 51563 High Voltage: 1025 Window: 4.42 Thrshld: 2.20

Detector S/N: 041532 Source ID/SN: Ra226/GS-04 Source Activity: 59.3 KpCi

Blank Canister Bkgd. Range, cpm: 2 σ = 78 to 151 3 σ = 60 to 170

Gross Source Range, cpm: 2 σ = 9959 to 10527 3 σ = 9817 to 10669

Technician: DL Cooper

All counts times are one minute.

	Date	By	Background Counts (1 min. each)				Source Counts (1 min. each)				ok?
			#1	#2	#3	Avg.	#1	#2	#3	Average	Y/N
Pre	11/06/13	DLCooper	137	112	136	128	10076	10123	9998	10066	Y
Post	11/06/13	DLCooper	132	143	115	130	9987	10325	10175	10162	Y
Pre	11/07/13	DLCooper	139	127	126	131	10168	10218	9995	10127	Y
Post	11/07/13	DLCooper	111	121	126	119	10004	10344	10050	10133	Y

Y/N: Y = average background and source cpm falls within the control limits.
N = average background and source cpm does not fall within the control limits.

The acceptable ranges were determined from prior background and source check data.

CHARCOAL CANISTER ANALYSIS SYSTEM

SITE LOCATION: White Mesa Mill, Blanding, UT

CLIENT: Energy Fuels Resources (USA)

Calibration Check Log

System ID: M-02/D-20 Calibration Date: 6/14/13 Due Date: 6/14/14

Scaler S/N: 51563 High Voltage: 1025 Window: 4.42 Thrshld: 2.20

Detector S/N: 041532 Source ID/SN: Ra^{226}/GS-05 Source Activity: 59.3KpCi

Blank Canister Bkgd. Range, cpm: 2 σ = 78 to 151 3 σ = 60 to 170

Gross Source Range, cpm: 2 σ = 9846 to 10498 3 σ = 9683 to 10661

Technician: DL Coop

All counts times are one minute.

	Date	By	Background Counts (1 min. each)				Source Counts (1 min. each)				ok?
			#1	#2	#3	Avg.	#1	#2	#3	Average	Y/N
Pre	11/06/13	DLCoop	137	112	136	128	10096	9993	10135	10075	Y
Post	11/06/13	DLCoop	132	143	115	130	10064	10061	10025	10050	Y
Pre	11/07/13	DLCoop	139	127	126	131	10008	10106	10208	10107	Y
Post	11/07/13	DLCoop	111	121	126	119	10192	10182	10124	10166	Y

Y/N: Y = average background and source cpm falls within the control limits.
N = average background and source cpm does not fall within the control limits.

The acceptable ranges were determined from prior background and source check data.

CHARCOAL CANISTER ANALYSIS SYSTEM

SITE LOCATION: White Mesa Mill, Blanding, UT

CLIENT: Energy Fuels Resources (USA)

Calibration Check Log

System ID: M-01 / D-21 Calibration Date: 6/14/13 Due Date: 6/14/14

Scaler S/N: 51572 High Voltage: 1025 Window: 4.42 Thrshld: 2.20

Detector S/N: 041533 Source ID/SN: Ra226/GS-04 Source Activity: 59.3K pCi

Blank Canister Bkgd. Range, cpm: 2 σ = 86 to 154 3 σ = 69 to 171

Gross Source Range, cpm: 2 σ = 9823 to 10547 3 σ = 9642 to 10728

Technician: DL Cooper

All counts times are one minute.

	Date	By	Background Counts (1 min. each)				Source Counts (1 min. each)				ok?
			#1	#2	#3	Avg.	#1	#2	#3	Average	Y/N
Pre	11/06/13	DLCooper	123	130	124	126	10065	10309	10234	10203	Y
Post	11/06/13	DLCooper	141	120	133	131	10185	10245	10146	10192	Y
Pre	11/07/13	DLCooper	123	146	128	132	9993	10196	10111	10100	Y
Post	11/07/13	DLCooper	116	135	127	126	10302	10292	10038	10211	Y

Y/N: Y = average background and source cpm falls within the control limits.
N = average background and source cpm does not fall within the control limits.

The acceptable ranges were determined from prior background and source check data.

CHARCOAL CANISTER ANALYSIS SYSTEM

SITE LOCATION: White Mesa Mill, Blanding, UT

CLIENT: Energy Fuels Resources (USA)

Calibration Check Log

System ID: M-01/D-21 Calibration Date: 6/14/13 Due Date: 6/14/14

Scaler S/N: 51572 High Voltage: 1025 Window: 4.42 Thrshld: 2.20

Detector S/N: 041533 Source ID/SN: Ra^{224}/GS-05 Source Activity: 59.3KpCi

Blank Canister Bkgd. Range, cpm: 2 σ = 86 to 154 3 σ = 69 to 171

Gross Source Range, cpm: 2 σ = 9895 to 10516 3 σ = 9740 to 10671

Technician: DL Coop

All counts times are one minute.

	Date	By	Background Counts (1 min. each)				Source Counts (1 min. each)				ok?
			#1	#2	#3	Avg.	#1	#2	#3	Average	Y/N
Pre	11/06/13	DLCoop	123	130	124	126	10103	10306	10392	10267	Y
Post	11/06/13	DLCoop	141	120	133	131	10150	10187	10197	10178	Y
Pre	11/07/13	DLCoop	123	146	128	132	10267	10161	10095	10174	Y
Post	11/07/13	DLCoop	116	135	127	126	10308	10186	10360	10285	Y

Y/N: Y = average background and source cpm falls within the control limits.
N = average background and source cpm does not fall within the control limits.

The acceptable ranges were determined from prior background and source check data.

BALANCE OPERATION DAILY CHECK

Balance Model: Ohaus Port-o-gram SN: 12307

Standard Weight (g): 200.0

Date	Pre-check (g)	Post-check (g)	O.K. ± 0.1 % ?	By
11/06/13	200.0	200.0	yes	D L Cooper
11/07/13	200.0	200.0	yes	D L Cooper

Appendix B

Recount Data Analyses

CLIENT: ENERGY FUELS RESOURCES PROJECT: RADON FLUX MEASUREMENTS, WHITE MESA MILL PROJECT NO.: 13004.00

PILE: 2 BATCH: P SURFACE: SOIL AIR TEMP MIN: 32°F WEATHER: NO RAIN
AREA: COVER DEPLOYED: 11 4 13 RETRIEVED: 11 5 13 CHARCOAL BKG: 152 cpm Wt. Out: 180.0 g.
FIELD TECHNICIANS: CS,DLC COUNTED BY: DLC DATA ENTRY BY: DLC TARE WEIGHT: 29.2 g.
COUNTING SYSTEM I.D.: M01/D21, M02/D20 CAL. DUE: 6/14/14

RECOUNT CANISTER ANALYSIS:

GRID	SAMPLE			RETRIV		ANALYSIS			MID-TIME		CNT	GROSS	GROSS	RADON	±	LLD	PRECISION
LOCATION	I. D.	HR	MIN	HR	MIN	MO	DA	YR	HR	MIN	(MIN)	COUNTS	WT IN	pCi/m^2s	pCi/m^2s	pCi/m^2s	% RPD
P10	P10	8	15	8	31	11	6	13	10	45	1	14985	220.3	25.3	2.5	0.03	
RECOUNT	P10	8	15	8	31	11	7	13	8	38	1	13003	220.3	25.9	2.6	0.04	2.3%
P20	P20	8	32	8	41	11	6	13	10	53	1	18798	219.8	32.0	3.2	0.03	
RECOUNT	P20	8	32	8	41	11	7	13	8	38	1	16578	219.8	33.2	3.3	0.04	3.7%
P30	P30	8	49	8	49	11	6	13	11	0	1	10017	221.6	17.0	1.7	0.03	
RECOUNT	P30	8	49	8	49	11	7	13	8	40	1	8811	221.6	17.6	1.8	0.04	3.5%
P40	P40	9	11	8	55	11	6	13	11	9	2	1815	221.3	1.3	0.1	0.03	
RECOUNT	P40	9	11	8	55	11	7	13	8	41	2	1538	221.3	1.3	0.1	0.04	0.0%
P50	P50	9	36	9	4	11	6	13	11	19	1	22526	224.4	39.4	3.9	0.03	
RECOUNT	P50	9	36	9	4	11	7	13	8	43	1	19707	224.4	40.6	4.1	0.04	3.0%
P60	P60	9	54	9	40	11	6	13	11	26	1	13734	220.3	23.6	2.4	0.03	
RECOUNT	P60	9	54	9	40	11	7	13	8	43	1	11587	220.3	23.3	2.3	0.04	1.3%
P70	P70	10	11	9	50	11	6	13	11	34	1	3421	221.7	5.7	0.6	0.03	
RECOUNT	P70	10	11	9	50	11	7	13	8	45	1	2898	221.7	5.6	0.6	0.04	1.8%
P80	P80	10	32	10	24	11	6	13	11	44	1	1166	221.3	1.7	0.2	0.03	
RECOUNT	P80	10	32	10	24	11	7	13	8	45	2	1968	221.3	1.7	0.2	0.04	0.0%
P90	P90	10	53	10	36	11	6	13	11	51	1	1672	224.1	2.6	0.3	0.03	
RECOUNT	P90	10	53	10	36	11	7	13	8	47	1	1430	224.1	2.6	0.3	0.04	0.0%
P100	P100	11	9	10	47	11	6	13	12	5	2	1876	222.5	1.4	0.1	0.03	
RECOUNT	P100	11	9	10	47	11	7	13	8	49	2	1589	222.5	1.3	0.1	0.04	7.4%
												AVERAGE PERCENT PRECISION FOR THE CELL 2 COVER REGION:					2.3%

Appendix C

Radon Flux Sample Laboratory Data (including Blanks)

CLIENT: ENERGY FUELS RESOURCES PROJECT: RADON FLUX MEASUREMENTS, WHITE MESA MILL PROJECT NO.: 13004.00

PILE: 2 BATCH: P SURFACE: SOIL AIR TEMP MIN: 32°F WEATHER: NO RAIN
AREA: COVER DEPLOYED: 11 4 13 RETRIEVED: 11 5 13 CHARCOAL BKG: 152 cpm Wt. Out: 180.0 g.
FIELD TECHNICIANS: CS,DLC COUNTED BY: DLC DATA ENTRY BY: DLC TARE WEIGHT: 29.2 g.
COUNTING SYSTEM I.D.: M01/D21, M02/D20 CAL. DUE: 6/14/14

GRID LOCATION	SAMPLE I. D.	DEPLOY HR	DEPLOY MIN	RETRIV HR	RETRIV MIN	ANALYSIS MO	ANALYSIS DA	ANALYSIS YR	MID-TIME HR	MID-TIME MIN	CNT (MIN)	GROSS COUNTS	GROSS WT IN	RADON pCi/m²s	± pCi/m²s	LLD pCi/m²s	COMMENTS:
P01	P01	8	3	8	25	11	6	13	10	36	1	1059	222.1	1.5	0.2	0.03	
P02	P02	8	5	8	26	11	6	13	10	36	1	3246	222.4	5.3	0.5	0.03	
P03	P03	8	6	8	26	11	6	13	10	37	1	3134	219.3	5.1	0.5	0.03	
P04	P04	8	7	8	27	11	6	13	10	37	1	16319	223.0	27.5	2.8	0.03	
P05	P05	8	8	8	27	11	6	13	10	41	3	1388	218.9	0.5	0.1	0.03	
P06	P06	8	9	8	28	11	6	13	10	41	2	1608	221.3	1.1	0.1	0.03	
P07	P07	8	10	8	29	11	6	13	10	44	1	2038	223.3	3.2	0.3	0.03	
P08	P08	8	12	8	30	11	6	13	10	44	1	7979	221.6	13.4	1.3	0.03	
P09	P09	8	13	8	30	11	6	13	10	45	1	1984	219.6	3.1	0.3	0.03	
P10	P10	8	15	8	31	11	6	13	10	45	1	14985	220.3	25.3	2.5	0.03	
P11	P11	8	17	8	32	11	6	13	10	47	1	5573	219.5	9.3	0.9	0.03	
P12	P12	8	19	8	33	11	6	13	10	47	1	31750	221.1	54.1	5.4	0.03	
P13	P13	8	21	8	34	11	6	13	10	48	1	7542	223.0	12.7	1.3	0.03	
P14	P14	8	23	8	35	11	6	13	10	48	1	9587	225.6	16.2	1.6	0.03	
P15	P15	8	24	8	36	11	6	13	10	50	1	2391	222.6	3.8	0.4	0.03	
P16	P16	8	26	8	37	11	6	13	10	50	1	3305	218.6	5.4	0.5	0.03	
P17	P17	8	27	8	38	11	6	13	10	51	1	7955	224.9	13.4	1.3	0.03	
P18	P18	8	28	8	39	11	6	13	10	51	1	11934	222.3	20.2	2.0	0.03	
P19	P19	8	30	8	40	11	6	13	10	53	1	22270	222.7	38.0	3.8	0.03	
P20	P20	8	32	8	41	11	6	13	10	53	1	18798	219.8	32.0	3.2	0.03	
P21	P21	8	34	8	42	11	6	13	10	54	1	9367	225.8	15.8	1.6	0.03	
P22	P22	8	35	8	43	11	6	13	10	54	1	17306	223.6	29.4	2.9	0.03	
P23	P23	8	37	8	43	11	6	13	10	56	1	13003	224.6	22.1	2.2	0.03	
P24	P24	8	39	8	44	11	6	13	10	56	1	3997	219.4	6.6	0.7	0.03	
P25	P25	8	41	8	45	11	6	13	10	57	1	32505	222.1	55.8	5.6	0.03	
P26	P26	8	43	8	46	11	6	13	10	57	1	2959	225.6	4.8	0.5	0.03	
P27	P27	8	45	8	47	11	6	13	10	59	1	32781	220.2	56.3	5.6	0.03	
P28	P28	8	46	8	47	11	6	13	10	59	1	10904	222.4	18.5	1.9	0.03	
P29	P29	8	47	8	48	11	6	13	11	0	1	59009	219.9	101.7	10.2	0.03	
P30	P30	8	49	8	49	11	6	13	11	0	1	10017	221.6	17.0	1.7	0.03	
P31	P31	8	51	8	49	11	6	13	11	2	1	21072	221.2	36.2	3.6	0.03	
P32	P32	8	52	8	50	11	6	13	11	2	1	16677	222.4	28.5	2.9	0.03	
P33	P33	8	59	8	51	11	6	13	11	3	1	1738	221.1	2.8	0.3	0.03	
P34	P34	9	2	8	51	11	6	13	11	3	1	3904	219.5	6.5	0.7	0.03	
P35	P35	9	4	8	52	11	6	13	11	5	1	11576	219.4	19.9	2.0	0.03	
P36	P36	9	6	8	53	11	6	13	11	5	1	27799	222.9	48.1	4.8	0.03	
P37	P37	9	8	8	54	11	6	13	11	6	1	13555	220.6	23.4	2.3	0.03	

CLIENT: ENERGY FUELS RESOURCES PROJECT: RADON FLUX MEASUREMENTS, WHITE MESA MILL PROJECT NO.: 13004.00

PILE: 2 BATCH: P SURFACE: SOIL AIR TEMP MIN: 32°F WEATHER: NO RAIN
AREA: COVER DEPLOYED: 11 4 13 RETRIEVED: 11 5 13 CHARCOAL BKG: 152 cpm Wt. Out: 180.0 g.
FIELD TECHNICIANS: CS,DLC COUNTED BY: DLC DATA ENTRY BY: DLC TARE WEIGHT: 29.2 g.
COUNTING SYSTEM I.D.: M01/D21, M02/D20 CAL. DUE: 6/14/14

GRID LOCATION	SAMPLE I. D.	DEPLOY HR	DEPLOY MIN	RETRIV HR	RETRIV MIN	ANALYSIS MO	ANALYSIS DA	ANALYSIS YR	MID-TIME HR	MID-TIME MIN	CNT (MIN)	GROSS COUNTS	GROSS WT IN	RADON pCi/m²s	± pCi/m²s	LLD pCi/m²s	COMMENTS:
P38	P38	9	9	8	54	11	6	13	11	6	1	1115	221.8	1.7	0.2	0.03	
P39	P39	9	10	8	55	11	6	13	11	8	1	14288	222.1	24.7	2.5	0.03	
P40	P40	9	11	8	55	11	6	13	11	9	2	1815	221.3	1.3	0.1	0.03	
P41	P41	9	12	8	56	11	6	13	11	10	1	2248	220.4	3.7	0.4	0.03	
P42	P42	9	14	8	56	11	6	13	11	11	2	1530	221.3	1.1	0.1	0.03	
P43	P43	9	16	8	57	11	6	13	11	14	2	1015	222.0	0.6	0.1	0.03	
P44	P44	9	19	8	58	11	6	13	11	13	1	29252	222.6	50.9	5.1	0.03	
P45	P45	9	22	8	59	11	6	13	11	16	1	81765	221.9	143.2	14.3	0.03	
P46	P46	9	24	9	0	11	6	13	11	16	1	4663	219.5	7.9	0.8	0.03	
P47	P47	9	31	9	2	11	6	13	11	17	1	37583	220.7	65.9	6.6	0.03	
P48	P48	9	32	9	3	11	6	13	11	17	1	46176	220.9	80.9	8.1	0.03	
P49	P49	9	33	9	3	11	6	13	11	19	1	11137	220.6	19.4	1.9	0.03	
P50	P50	9	36	9	4	11	6	13	11	19	1	22526	224.4	39.4	3.9	0.03	
P51	P51	9	38	9	4	11	6	13	11	20	1	9993	219.5	17.4	1.7	0.03	
P52	P52	9	40	9	5	11	6	13	11	20	1	9426	226.0	16.4	1.6	0.03	
P53	P53	9	42	9	5	11	6	13	11	22	1	3729	219.8	6.3	0.6	0.03	
P54	P54	9	44	9	6	11	6	13	11	22	1	15102	222.4	26.4	2.6	0.03	
P55	P55	9	46	9	7	11	6	13	11	23	1	7282	219.8	12.6	1.3	0.03	
P56	P56	9	48	9	36	11	6	13	11	23	1	64184	223.1	111.0	11.1	0.03	
P57	P57	9	49	9	37	11	6	13	11	25	1	18992	221.4	32.7	3.3	0.03	
P58	P58	9	50	9	38	11	6	13	11	25	1	11705	221.8	20.0	2.0	0.03	
P59	P59	9	52	9	39	11	6	13	11	26	1	6452	224.5	10.9	1.1	0.03	
P60	P60	9	54	9	40	11	6	13	11	26	1	13734	220.3	23.6	2.4	0.03	
P61	P61	9	55	9	41	11	6	13	11	28	1	4403	219.6	7.4	0.7	0.03	
P62	P62	9	57	9	42	11	6	13	11	28	1	5131	223.8	8.6	0.9	0.03	
P63	P63	9	59	9	43	11	6	13	11	29	1	2681	224.0	4.4	0.4	0.03	
P64	P64	10	0	9	44	11	6	13	11	29	1	17545	220.3	30.2	3.0	0.03	
P65	P65	10	1	9	45	11	6	13	11	31	1	17946	221.0	31.0	3.1	0.03	
P66	P66	10	3	9	46	11	6	13	11	31	1	15675	221.8	27.0	2.7	0.03	
P67	P67	10	5	9	47	11	6	13	11	32	1	29707	222.5	51.5	5.1	0.03	
P68	P68	10	7	9	48	11	6	13	11	32	1	1479	212.7	2.3	0.2	0.03	
P69	P69	10	9	9	49	11	6	13	11	34	1	3655	220.8	6.1	0.6	0.03	
P70	P70	10	11	9	50	11	6	13	11	34	1	3421	221.7	5.7	0.6	0.03	
P71	P71	10	12	9	51	11	6	13	11	35	1	21783	222.2	37.8	3.8	0.03	
P72	P72	10	14	9	52	11	6	13	11	35	1	11145	220.5	19.2	1.9	0.03	
P73	P73	10	15	9	53	11	6	13	11	37	1	15363	222.8	26.6	2.7	0.03	
P74	P74	10	17	9	54	11	6	13	11	37	1	11808	222.4	20.3	2.0	0.03	

CLIENT: ENERGY FUELS RESOURCES PROJECT: RADON FLUX MEASUREMENTS, WHITE MESA MILL PROJECT NO.: 13004.00

PILE: 2 BATCH: P SURFACE: SOIL AIR TEMP MIN: 32°F WEATHER: NO RAIN
AREA: COVER DEPLOYED: 11 4 13 RETRIEVED: 11 5 13 CHARCOAL BKG: 152 cpm Wt. Out: 180.0 g.
FIELD TECHNICIANS: CS,DLC COUNTED BY: DLC DATA ENTRY BY: DLC TARE WEIGHT: 29.2 g.
COUNTING SYSTEM I.D.: M01/D21, M02/D20 CAL. DUE: 6/14/14

GRID LOCATION	SAMPLE I. D.	DEPLOY HR	DEPLOY MIN	RETRIV HR	RETRIV MIN	ANALYSIS MO	ANALYSIS DA	ANALYSIS YR	MID-TIME HR	MID-TIME MIN	CNT (MIN)	GROSS COUNTS	GROSS WT IN	RADON pCi/m²s	± pCi/m²s	LLD pCi/m²s	COMMENTS:
P75	P75	10	19	9	55	11	6	13	11	38	1	1495	221.6	2.3	0.2	0.03	
P76	P76	10	20	9	56	11	6	13	11	38	1	1063	220.7	1.6	0.2	0.03	
P77	P77	10	25	10	21	11	6	13	11	41	3	1127	220.7	0.4	0.0	0.03	
P78	P78	10	28	10	22	11	6	13	11	41	2	1101	222.0	0.7	0.1	0.03	
P79	P79	10	30	10	23	11	6	13	11	44	1	2154	221.4	3.5	0.3	0.03	
P80	P80	10	32	10	24	11	6	13	11	44	1	1166	221.3	1.7	0.2	0.03	
P81	P81	10	34	10	25	11	6	13	11	45	1	4807	220.1	8.0	0.8	0.03	
P82	P82	10	36	10	26	11	6	13	11	45	1	12441	221.9	21.2	2.1	0.03	
P83	P83	10	38	10	27	11	6	13	11	47	1	14691	222.6	25.1	2.5	0.03	
P84	P84	10	41	10	28	11	6	13	11	47	1	1872	223.9	3.0	0.3	0.03	
P85	P85	10	44	10	29	11	6	13	11	48	1	3007	223.0	4.9	0.5	0.03	
P86	P86	10	46	10	30	11	6	13	11	48	1	4391	221.6	7.3	0.7	0.03	
P87	P87	10	48	10	31	11	6	13	11	50	1	2847	220.6	4.7	0.5	0.03	
P88	P88	10	50	10	32	11	6	13	11	50	1	9315	221.1	15.9	1.6	0.03	
P89	P89	10	51	10	35	11	6	13	11	51	1	15910	219.4	27.3	2.7	0.03	
P90	P90	10	53	10	36	11	6	13	11	51	1	1672	224.1	2.6	0.3	0.03	
P91	P91	10	55	10	37	11	6	13	11	53	1	1699	222.8	2.7	0.3	0.03	
P92	P92	10	57	10	38	11	6	13	11	53	1	4260	219.9	7.1	0.7	0.03	
P93	P93	10	58	10	39	11	6	13	11	54	1	7558	225.7	12.9	1.3	0.03	
P94	P94	11	0	10	40	11	6	13	11	54	1	1379	220.7	2.1	0.2	0.03	20' W
P95	P95	11	3	10	41	11	6	13	11	57	2	1231	226.1	0.8	0.1	0.03	
P96	P96	11	5	10	42	11	6	13	11	59	4	1089	222.4	0.2	0.0	0.03	
P97	P97	11	6	10	44	11	6	13	12	3	1	3934	219.5	6.6	0.7	0.03	
P98	P98	11	7	10	45	11	6	13	12	3	1	1884	220.1	3.0	0.3	0.03	
P99	P99	11	8	10	46	11	6	13	12	5	3	1423	219.4	0.6	0.1	0.03	
P100	P100	11	9	10	47	11	6	13	12	5	2	1876	222.5	1.4	0.1	0.03	

AVERAGE RADON FLUX RATE FOR THE CELL 2 COVER REGION: 19.5 pCi/m²s

0.2 MIN
143.2 MAX

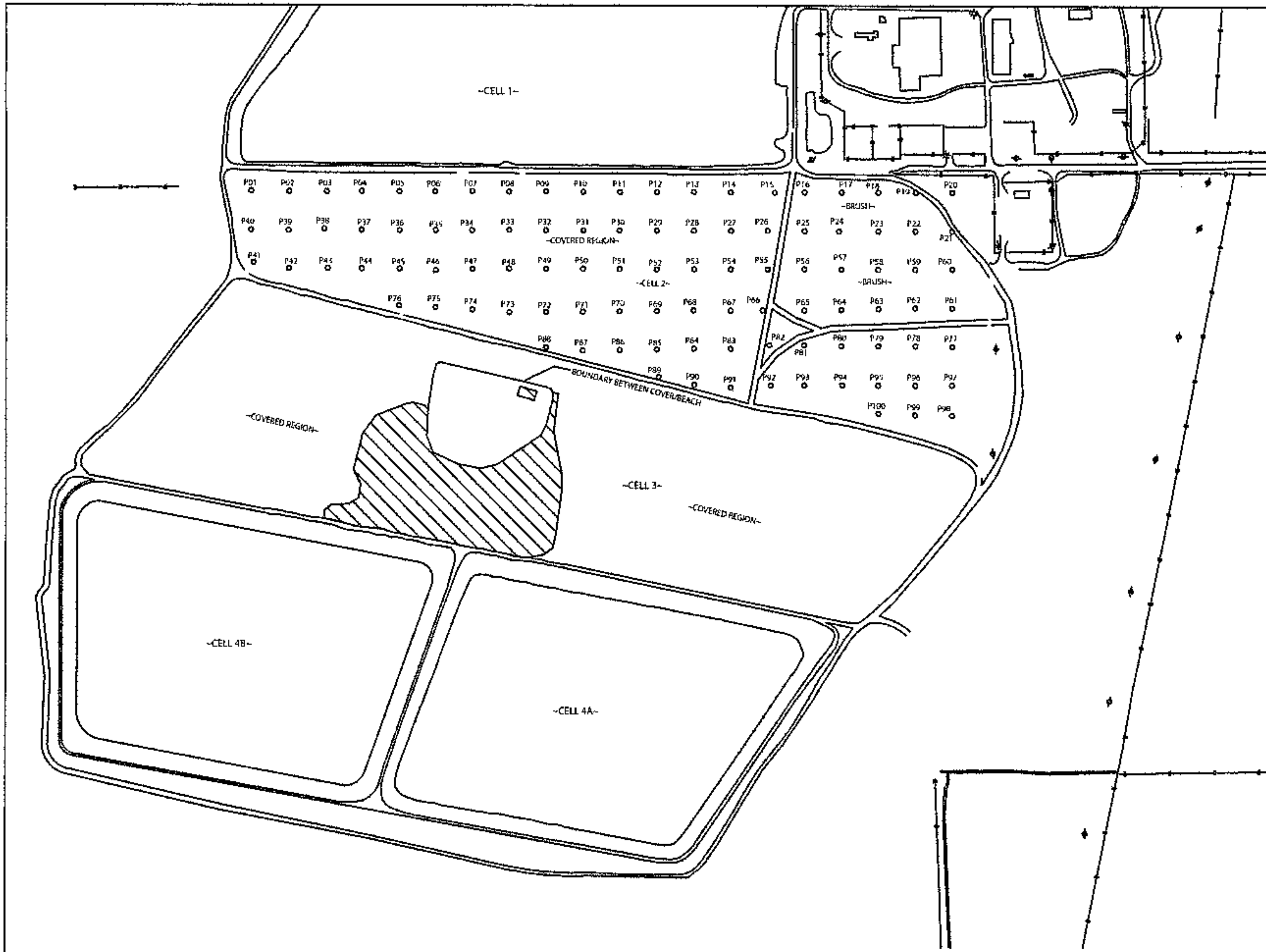
BLANK CANISTER ANALYSIS:

GRID LOCATION	SAMPLE I. D.	HR	MIN	RETRIV HR	RETRIV MIN	ANALYSIS MO	ANALYSIS DA	ANALYSIS YR	MID-TIME HR	MID-TIME MIN	CNT (MIN)	GROSS COUNTS	GROSS WT IN	RADON pCi/m²s	± pCi/m²s	LLD pCi/m²s	COMMENTS:
P BLANK 1	P BLANK 1	7	55	9	35	11	6	13	10	3	10	1508	210.9	0.00	0.02	0.03	CONTROL
P BLANK 2	P BLANK 2	7	55	9	35	11	6	13	10	3	10	1579	208.1	0.01	0.02	0.03	CONTROL
P BLANK 3	P BLANK 3	7	55	9	35	11	6	13	10	14	10	1529	212.9	0.00	0.02	0.03	CONTROL
P BLANK 4	P BLANK 4	7	55	9	35	11	6	13	10	14	10	1524	209.9	0.00	0.02	0.03	CONTROL
P BLANK 5	P BLANK 5	7	55	9	35	11	6	13	10	25	10	1551	210.2	0.00	0.02	0.03	CONTROL

AVERAGE BLANK CANISTER ANALYSIS FOR THE CELL 2 COVER REGION: 0.00 pCi/m²s

Appendix D

Sample Locations Map (Figure 2)



WHITE MESA MILL

BLANDING, UTAH

NESHAPS 2013

NOVEMBER 2013

PREPARED FOR
ENERGY FUELS RESOURCES

LEGEND

P01 o - SAMPLE LOCATION ON COVERED AREAS

FIGURE 2

N

SCALE IN FEET
200 100 0 200 400

TELLCO
ENVIRONMENTAL, LLC